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Office of Grants and Research Contracts
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Washington, D. C. 20546

Reference: NASA Contract NSR-24-005-093 -- Quarterly Status Report
February 11, 1966 -- May 11, 1966

Gentlemen:

The experiments covered by this NASA contract, namely two rocket flights to investigate very low frequency waves in the magnetosphere are funded by two contracts, the present one and a grant from the Space Science Center of the University of Minnesota. The Space Science Center grant expires June 30, 1966, so that all of the funds used in the experiment during the period covered by this status report have been taken from the Space Science Center grant. Very little has been spent of the funds provided under the present contract.

During the period covered by this report, a swept frequency radio receiver covering the range one to ten megacycles was constructed and tested, together with two antennas and preamplifiers. This experiment is to be flown in an Aerobee 350 rocket scheduled for flight on August 18, 1966. The apparatus seems to work properly and there is no reason to expect any troubles between now and flight time.

The second experiment is to measure the very low frequency waves, particularly electrostatic waves, over a much larger frequency range from 100 cycles to 10 megacycles. The vehicle is to be an Astrobee 1500. Much of the layout work for the series of swept frequency receivers which will be used in this experiment has been carried out and the boxes for the electronic circuits are being constructed in the shop. Not very much work has yet been done on the electronic circuits themselves. Preliminary designs for the antennas have been made.

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